

- ART. XXXVI.—*A Treatise on the Diseases of the Eye.* By J. SOELBERG WELLS, F.R.C.S., Doctor of Medicine of Univer. of Edinb., Prof. of Ophthalmology in King's Coll. Lond., etc. Second American, from the third English edition, with additions. Illustrated with 248 engravings on wood, and six coloured plates, together with selections from the test-types of Prof. E. Jaeger and Dr. H. Snellen. Philadelphia: Henry C. Lea, 1873.
- Treatise on the Diseases of the Eye, including the Anatomy of the Organ.* By Dr. CARL STELLWAG (Von Carion), Prof. of Ophthalmology in the Imp. Royal Univ. of Vienna. Translated from the fourth German ed., and edited by D. B. ST. JOHN ROOSA, M.D., CHARLES S. BULL, M.D., and CHARLES E. HACKLEY, M.D. Fourth revised and enlarged edition. Illustrated by wood-engravings and chromo-lithographs. New York: William Wood & Co., 1873.

THESE standard works on the eye have received a careful revision both at the hands of their authors and their American editors, and for the most part give a fair *résumé* of the present state of our knowledge in this department of medicine. As might be expected, the style of the respective authors remains unchanged in their new editions, and the clear, straightforward, and unaffected writing of Mr. Wells stands out in strong relief when contrasted with the involved and obscure sentences of Stellwag. One might suppose that this was the fault of the translators, but, on comparing their work with the original, it is quite apparent that in most instances they have rendered full justice to the latter. We are told in the first four lines of Stellwag that "the object of all treatment is to give as favourable direction as possible to the nutrition," and that "in order to properly fulfil this indication, it is necessary in the first place to thoroughly understand the circulation and innervation of the eyeball." To refresh our ideas on the latter subject, and obtain the newest views on it, we turned with some interest to the latter part of the same chapter, and looked under the heading, *Mydriatics* (page 32), hoping to obtain some useful information as to the employment of those important agents in affections of the eye. The author has in his last edition very much extended his remarks on this important subject, but has by so doing by no means increased the perspicuity of what was already an exceedingly obscure section.

"These effects [mydriasis and impairment of the accommodation] are, generally speaking, either the expression of a weakening or paralysis of the intra-ocular muscles, supplied by the third pair of nerves, or very probably the evidence of a direct excitement of those inner muscles of the eye which receive their nerve supplies from the cervical portion of the sympathetic." (Our author gives no hint as to which of the two, in his mind evidently contradictory, hypotheses, he considers most probable, and that mydriatics may paralyze the third pair of nerves, and at the same time stimulate the sympathetic, has apparently never occurred to him; but to continue.) "Indeed, mydriatics enlarge the pupil to the maximum where conduction is completely interrupted in the third and fourth nerves, in fact in all the cerebral nerves passing to the orbit." (Why not?) "These contractions" (what contractions?) "are also more powerful than those which can be excited in a normal state by external irritation," (of what?), "which state of things may be with some certainty referred to the radiate fibres of the iris."

Can the force of vagueness go further? Has our author any definite ideas as to the anatomy of the eye and its innervation, or does he hold, with Talleyrand, that "the use of language is to conceal thought." The remaining five pages devoted to this subject exhibit other equally obscure passages, and may be taken as a fair example of many similar ones throughout the book—passages with a great show of learning, and but little logic or individual expression of

opinion; in short, where we have "but one-half pennyworth of bread to this intolerable deal of sack."

They, of course, constitute great blemishes in what is often an instructive and always an erudite book.

Although by no means a novelty, perhaps no subject in the whole range of eye-surgery has of late years excited more discussion than the various methods of operating for cataract, the after-treatment, and the percentage of good results. As regards the comparative merits of the flap extraction and of the peripheric linear method, Wells holds that the former is easier, and although he avoids definitely saying so, evidently regards the latter as the best operative procedure when the surgeon has acquired sufficient skill. Stellwag regards the "old flap operation as really far better than its present reputation," and states that those will always prefer it who dare risk a few absolute failures in the attempt to attain a perfect result: while those who disregard the greater difficulty and duration of the operation, and strive to obtain the largest possible number of medium successes will choose the peripheric linear method. He also quotes Reuss and Woinow to show that there is less astigmatism after the latter operation than occurs after the flap extraction. Wells states that after the former the confinement to bed is much shorter, and that the patient requires far less watching and attendance. We fully agree in this estimate, and to our mind it constitutes the strongest claim of Gräfe's operation to superiority over the old flap method.

Both authors very properly condemn reclinacion or couching. As regards the suction method for soft cataracts, Wells states that it has met favour at Moorfields, and Stellwag defines it as "linear extraction with artificial hindrances." Neither author makes mention of Liebreich's operation, but in both instances the American editors have given a description of the operation, without further remark. Wells abstains from the use of chloroform in flap operations on account of the danger of vomiting. Stellwag never resorts to anaesthesia except in cases of children or exceedingly nervous patients.

As regards the connection of the so-called "choked disk," with intracranial disease, Stellwag considers that it is generally found "under conditions which do not admit of the hypothesis of a direct connection between the primary affection and that of the eye;" that the orbital portion of the nerve in manifest descending neuritis is either uninvolved or only very slightly affected; that "it is evident that under such circumstances there can be no question of a propagation of inflammation by contiguity of tissue, and that here nervous influences, particularly of a vaso-motor nature, must rather come into play." Both authors hold, that, since Sesemann has proved that the central retinal vein, although emptying directly into the cavernous sinus, has yet anastomoses with the superior and inferior ophthalmic veins, the hypothesis that choked disk is caused by obstruction to the return blood, from increased intracranial pressure, must be abandoned. Wells, however, gives great prominence to the researches of Schwalbe, Schmidt, and Manz, which demonstrate a communication between the arachnoid space and that between the two sheaths of the optic nerve, and further, that injections into the first-named cavity thus find their way into the network of lymphatics ramifying with the lamina cribrosa, thus showing how intracranial pressure may act directly on the intraocular end of the optic nerve; while Stellwag thinks that "the circumstance that the so-called choked disk appears relatively but rarely in marked increase of the intracranial pressure, and, on the other hand, is met with in a perfectly normal state of the latter is, however, unfavourable for the above view." Wells also refers at some length to Benedict's theory, and to Leber's endorse-

ment of it. Selections from the test-types of Jaeger and Snellen are appended to both books, and in both, those of Jaeger do not correspond with the original. In it the capitals of No. 1 measure $\frac{3}{4}$ mm., and the m's, n's, v's, etc. $\frac{1}{2}$ mm. In the American editions the capitals measure 1 mm., and the m's, n's, etc., $\frac{3}{4}$ mm. Consequently while the Jaeger No. 1 of the Vienna press can be read fluently by a normal eye at 14", that of the American copies can be read with equal fluency at 18". The plates in Stellwag, although bearing the imprint of the German publisher, are inferior to those in the third German edition, and on opening those appended to Wells we find what purports to be a normal eye-ground with a large *arterial sinus* at the inner border of the disk, encircling one-half of it, anastomosing with two arterial twigs given off from one of the superior branches of the central artery of the retina, and finally terminating above in an arterial twig running outwards above the macula lutea. Entirely unfamiliar with any such distribution of the intraocular bloodvessels, we turned to Liebreich's atlas to see whether he gave it the weight of his authority, but failed to find either in the German or English edition of his atlas any such caricature of the circulation in a normal eye-ground.

W. F. N.

ART. XXXVII.—*Chemistry, Inorganic and Organic; with Experiments.* By CHARLES LOUDON BLOXAM, Professor of Chemistry in King's College, London, in the Royal Military Academy, Woolwich, and in the Department of Artillery Studies, Woolwich. With two hundred and ninety-five illustrations. From the second and revised English edition. 8vo. pp. 700. Philadelphia: Henry C. Lea, 1873.

IN this edition of his *Chemistry*, Professor Bloxam has adopted the atomic system of notation, the use of which has become so general in the past few years, and, though he is of opinion that the change adds materially to the difficulty of teaching chemistry with ease and profit to the student, it can be safely said that he has satisfactorily overcome the difficulty.

One advantage of the work is that it combines better than most the practical and theoretical.

As a rule, those who write about chemistry put forth books which are either exceedingly elementary, or, to the ordinary student, frightfully profound, and there are some who have succeeded in combining the two in such exquisite proportions that it is impossible for a beginner to follow them at all. Here, however, much of this has been avoided, and, on the whole, no book is better fitted to be placed in the hands of one who is about to make his first step in the field of general chemistry.

In the portion relating to organic chemistry, the author has followed no ordinary rule, but has, for the sake of increasing the interest of the study, followed what might be called a natural order. It may be that more is gained than lost by such a course. It certainly will commend itself to beginners and those who do not wish to follow chemistry far, and for this class the book is more particularly intended. It has the disadvantage, however, of rendering it somewhat more difficult at a later period for those who pursue their chemical studies to place together in their minds those substances that are now believed to be especially related to each other.

For the teacher of chemistry the work has an advantage not possessed by any other recent work. That is the large number of experiments, many of them new, descriptions of which, accompanied by excellent wood-cuts, are to be